

DETAIL SPECIFICATION

ADAPTERS, CONNECTOR, COAXIAL, RADIOFREQUENCY, BETWEEN SERIES,
GENERAL SPECIFICATION FOR

Inactive for new design after
19 February 1982

This specification is approved for use by all Departments
and Agencies of the Department of Defense

1. SCOPE

1.1 Scope. This specification covers the general requirements for weatherproof, between series, radio-frequency, coaxial connector adapters having a nominal impedance of 50 ohms (see 6.1).

1.2 Classification.

1.2.1 Type designation. The type designation of connector adapters is derived from the AN nomenclature system specified in Standard MIL-STD-196 (see 3.1 and 6.2.).

1.2.2 Part or Identifying Number (PIN) The PIN consists of the applicable "UG" designation.

UG-XXXX()/U

2. APPLICABLE DOCUMENTS

2.1 General. The documents listed in this section are specified in sections 3, 4 or 5 of this specification. This section does not include documents cited in other sections of this specification or recommended for additional information or as examples. While every effort has been made to ensure the completeness of this list, document users are cautioned that they must meet all specified requirements cited in sections 3, 4 or 5 of this specification, whether or not they are listed.

2.2 Government documents.

2.2.1 Specifications, standards, and handbooks. The following specifications, standards, and handbooks form a part of this document to the extent specified herein. Unless otherwise specified, the issues of these documents are those cited in the solicitation or contract.

Comments, suggestions, or questions on this document should be addressed to Defense Supply Center, Columbus, ATTN: VAI, P.O. Box 3990 East Broad Street, Columbus, Ohio 43216-5000 or email to rfconnectors@dla.mil. Since contact information can change, you may want to verify the currency of this address information using the ASSIST Online database at www.dodssp.daps.mil.

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FEDERAL SPECIFICATIONS

A-A-59551	- Wire, Electrical, Copper (Un-insulated)
A-A-59588	- Rubber, Silicone
O-F-499	- Flux, Low Melting Point Silver Alloy Braising
L-P-390	- Plastic, Molding and Extrusion Material, Polyethylene and Copolymers (Low, Medium and High Density)
L-P-516	- Plastic, Sheet and Plastic Rod, Thermosetting, Cast
QQ-B-654	- Brazing Alloys, Silver

FEDERAL STANDARDS

FED-STD-H28 - Screw-Threaded Standards For Federal Services

DEPARTMENT OF DEFENSE SPECIFICATIONS

MIL-DTL-3643	- Connectors, Coaxial, Radio Frequency, Series HN, and Associated Fittings, General Specification For
MIL-DTL-3650	- Connector, Coaxial, Radio Frequency, Series LC

DEPARTMENT OF DEFENSE STANDARDS

MIL-STD-130	- Identification Marking of U. S. Military Property
MIL-STD-202	- Test Methods for Electronic and Electrical Component Parts
MIL-STD-348	- Radio Frequency Connector Interfaces
MIL-STD-889	- Dissimilar Metals

(See supplement 1 for list of specification sheets.)

(Copies of these documents are available online at <http://assist.daps.dla.mil/quicksearch/> or www.dodssp.daps.mil or Standardization Document Order Desk, 700 Robbins Avenue, Building 4D, Philadelphia, PA 19111-5094.)

2.3 Non-Government publications. The following documents form a part of this document to the extent specified herein. Unless otherwise specified, the issues of the documents are those cited in the solicitation or contract.

ASTM INTERNATIONAL

ASTM B16	-	Rod, Brass, Free-Cutting, Bar and Shapes For Use in Screw Machines
ASTM B36	-	Brass Plate, Sheet, Strip and Rolled Bar
ASTM B121	-	Leaded Brass Plate, Sheet, Strip and Rolled Bar
ASTM B124	-	Copper and Copper Alloy Forging Rod, Bar and Shapes
ASTM B139	-	Phosphor Bronze Rod, Bar and Shapes
ASTM B194	-	Copper Beryllium Alloy Plate, Sheet, Strip and Rolled Bar
ASTM B196	-	Copper Beryllium Alloy Rod and Bar
ASTM B197	-	Copper Beryllium Alloy Wire
ASTM B700	-	Electrodeposited Coatings of Silver for Engineering Uses.
ASTM D1710	-	Tubing, Extruded and Compression Molded, Polytetrafluoroethylene (PTFE) Rod and Heavy Walled
ASTM D2000	-	Rubber Products in Automotive Applications

(Copies of these documents are available from www.astm.org or ASTM International 100 Barr Harbor Dr., West Conshohocken, PA 19428.)

INSTITUTE FOR INTERCONNECTING AND PACKAGING ELECTRONIC CIRCUITS

J-STD-006	-	Electronic Grade Solder Alloys and Fluxed and Non-Fluxed Solid Solders For Electronic Soldering Applications, Requirements For
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(Applications for copies should be addressed to the Institute for Interconnecting and Packaging Electronic Circuits, 2215 Sanders Road, Northbrook, IL 60062.)

SAE INTERNATIONAL

SAE-AMS-H-7199	-	Heat Treatment of Wrought Copper-Beryllium Alloys, Process For (Copper Alloys: Numbers C17000, C17200, C17300, C17500 and C17510)
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(Copies of these documents are available from www.sae.org or SAE International, 400 Commonwealth Drive, Warrendale, PA 15096-0001.)

2.4 Order of precedence. In the event of a conflict between the text of this document and the references cited herein (except for related associated specifications or specification sheets), the text of this document takes precedence. Nothing in this document, however, supersedes applicable laws and regulations unless a specific exemption has been obtained.

3. REQUIREMENTS

3.1 Specification sheets. The individual item requirements shall be as specified herein and in accordance with the applicable specification sheet. In the event of conflict between the requirements and of this specification and the specification sheet, the latter shall govern.

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3.2 Detail requirements for individual connector adapter types. Detail requirements or exceptions applicable to individual types of connector adapters shall be as specified in the detail specifications listed in Supplement 1 to this specification. In the event of any conflict between requirements of this specification and the detail specifications, the latter shall govern (see 6.2).

3.3 Material. Unless otherwise specified (see 3.1), the material shall be as specified herein however, when a definite material is not specified, a material shall be used which will enable the connector adapters to meet the performance requirements of this specification. Acceptance or approval of any constituent material shall not be construed as a guaranty of the acceptance of the finished product. Dissimilar metals between which an electromotive couple may exist shall not be placed in contact with each other. Reference is made to MIL-STD-889 for definition of dissimilar metals.

3.3.1 Brass. Brass shall conform to ASTM B16, ASTM B36, ASTM B121 or ASTM B124.

3.3.2 Copper-beryllium. Copper beryllium shall conform to ASTM B194, ASTM B196 or ASTM B197. Parts fabricated of copper beryllium shall be heat treated to Condition HT in accordance with SAE-AMS-H-7199 after machining and forming.

3.3.3 Copper wire. Copper wire shall conform to A-A-59551.

3.3.4 Phosphor bronze. Phosphor bronze shall conform to composition A of ASTM B139.

3.3.5 Dielectric materials. Dielectric materials shall conform to the following:

3.3.5.1 Polytetrafluoroethylene. Polytetrafluoroethylene shall be in accordance with ASTM D1710.

3.3.5.2 Polyethylene. Polyethylene shall conform to type II, grade 4, class L of L-P-390.

3.3.5.3 Polystyrene. Polystyrene shall conform to type E-2 of L-P-516.

3.3.6 Silicone rubber. Silicone rubber shall conform to class II, grade 50 or 60, of A-A-59588, except that oil-immersion test is not applicable.

3.3.7 Silver solder. Silver solder shall conform to class 1 of QQ-B-654.

3.3.7.1 Flux. Flux used while silver soldering shall conform to Specification O-F-499.

3.3.8 Soft solder. Soft solder shall conform to composition Sn60 of J-STD-006.

3.3.9 Synthetic rubber. Synthetic rubber shall conform to ASTM D2000.

3.3.10 Recycled, recovered, or environmentally preferable materials. Recycled, recovered, or environmentally preferable materials should be used to the maximum extent possible provided that the material meets or exceeds the operational and maintenance requirements, and promotes economically advantages life cycle costs.

3.4 Design and construction. Connector adapters shall be of the design, construction, and envelope dimensions specified (see 3.1.). Wherever feasible, parts having similar electrical characteristics may be combined (fabricated as a single piece) to simplify construction. Parts of unlike materials may be combined such as brass and copper beryllium, provided copper beryllium is used in the fabrication of the single-piece construction.

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3.4.1 Terminations. Unless otherwise specified herein, the requirements for the various terminations of the connector adapters shall conform to the specification specified in table I, as applicable. The adapters shall be gaged in accordance with 4.4.2.

TABLE I. Requirements for terminations. ^{1/}

Termination requirements ^{2/}	Specifications					
	MIL-STD-348	MIL-STD-348	MIL-STD-348	MIL-DTL-3643	MIL-C-3650	Mil-STD-348
Series C	X	-	-	-	-	-
Contacts						
Form-over solder joint						
Coupling sleeves ^{3/}						
Sleeve bushings						
Solder joint						
Rotation						
Interchangeability (applicable to male sections of adapters).						
Series N	-	X	-	-	-	-
Coupling nuts						
Contacts						
Series BNC	-	-	X	-	-	-
Coupling sleeves						
Contacts						
Series HN	-	-	-	X	-	-
Coupling nuts						
Contacts						
Series LC	-	-	-	-	X	-
Coupling nuts						
Contacts						
Series twin	-	-	-	-	-	X
Coupling nuts						
Contacts						

^{1/} For the purpose of this specification, terminations are defined as the respective portions of the connector adapter which from the transition from one connector series to another.

^{2/} For series BN, LN, LT, SM, QDL, QDS, and UHF, see 3.1.

^{3/} Refers to bayonet-sleeve bushing and plain-sleeve bushing after assembly.

3.4.1.1. Contacts. When tested in accordance with 4.4.3, the contacts shall meet the dimensional requirements for contacts specified in the specifications specified in table I, as applicable. For series BN, LN, LT, SM, QDL, QDS, and UHF contacts (see 3.1).

3.4.2 Finish. Unless otherwise specified (see 3.1), all metal parts have a silver plating of not less than 0.0002 inch (0.005 mm) thick, and of sufficient smoothness and density to withstand the salt-spray (corrosion) test specified in 4.4.5. Silver plating shall be in accordance with ASTM B700. Dimensions of metal parts shall include the plating (see 3.1).

3.4.3 Screw threads. Screw threads shall conform to FED-STD-H28, and shall have the specified fit after plating (see 3.1).

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3.5 Dielectric withstanding voltage. When connector adapters are tested as specified in 4.4.4, there shall be no evidence of breakdown.

3.6 Salt spray (corrosion). When connector adapters are tested as specified in 4.4.5, there shall be no evidence of destructive corrosion or pitting. Destructive corrosion shall be construed as any type of corrosion which in any way interferes with mechanical or electrical performance.

3.7 Vibration. When adapters are tested as specified in 4.4.6, there shall be no evidence of mechanical damage, loosening of parts, rupturing, or electrical discontinuity exceeding 10 microseconds.

3.8 Shock. When adapters are tested as specified in 4.4.7, there shall be no evidence of mechanical damage, loosening of parts, rupturing, or electrical discontinuity exceeding 10 microseconds.

3.9 Marking. Connector adapters shall be marked in accordance with MIL-STD-130, with the type designation and the manufacturer's code symbol. Marking shall be in depressed characters approximately 0.062 inch (1.57 mm) in height, in the place specified (see 3.1).

3.10 Workmanship. Connector adapters shall be processed in such a manner as to be uniform in quality and shall be free from sharp edges, burrs, except where sharp edges are required for mechanical or electrical reasons. All solder joints shall be thoroughly cleaned.

4. VERIFICATION

4.1 Classification of inspection. The inspection requirements specified herein are classified as follows:

- a. Component-materials inspection (see 4.2).
- b. Conformance inspection (see 4.3).

4.2 Component-materials inspection. Component-materials inspection shall consist of verification that the component materials listed in table II, used in fabricating the connector adapters, are in accordance with the applicable referenced specifications or requirements prior to such fabrication. When deemed necessary by the Government, certified test data or a certificate of analysis may be required from the source.

TABLE II. Component-materials inspection.

Component material	Requirement paragraph	Applicable specification
Brass	3.3.1	ASTM B16, ASTM B36, ASTM B121 or ASTM B124
Copper beryllium	3.3.2	ASTM B194, ASTM B196 or ASTM B197
Copper wire	3.3.3	A-A-59551
Phosphor bronze	3.3.4	ASTM B139
Dielectric materials:		
Polytetrafluoroethylene	3.3.5.1	ASTM D1710
Polyethylene	3.3.5.2	L-P-390
Polystyrene	3.3.5.3	L-P-516
Silicone rubber	3.3.6	A-A-59588
Silver solder	3.3.7	QQ-B-654
Flux	3.3.7.1	O-F-499
Soft solder	3.3.8	J-STD-006
Synthetic rubber	3.3.9	ASTM D2000

4.3 Conformance inspection.

4.3.1 Inspection condition. Unless otherwise specified herein, all inspection shall be made at room ambient temperature, relative humidity, and pressure.

4.3.1.1 Inspection lot. An inspection lot, as far as practicable, shall consist of all the connector adapters of the same type designation, produced under essentially the same conditions, and offered for inspection at one time.

4.3.1.1.1 Rejected lots. If an inspection lot is rejected after group A and B inspection, the lot shall not be supplied to the contract or purchase order. In cases where the defect(s) are minor in nature, such as smudged marking, the contractor may contact the qualifying activity for permission to screen the lot to remove defective parts or rework the lot. The qualifying activity shall be contacted for guidance in such situations. Rejected lots shall be kept separate from new lots and shall not lose their identity.

4.3.1.2 Group A inspection. Group A inspection shall consist of the examinations and test specified in table III, and shall be made on the same set of sample units, in the order shown.

4.3.1.2.1 Sampling plan. Table III tests shall be performed on a production lot basis. Samples shall be selected in accordance with table IV. If one or more defects are found, the lot shall be screened for that particular defect and defects removed. A new sample of parts shall be selected in accordance with table IV and all group A tests again performed. If one or more defects are found in the second sample, the lot shall be rejected and shall not be supplied to this specification.

4.3.1.2.2 Visual inspection (group A inspection). Each connector shall be visually examined for completeness, workmanship, and identification requirements. Attention shall be given to those assemblies that require a gasket to determine the condition of the gasket. Gaskets missing, twisted, buckled, kinked, or damaged in any way shall be cause for rejection. Group A inspection shall be performed in any order acceptable to the Government.

TABLE III. Group A inspection.

Examination or test	Requirement paragraph	Method paragraph
Visual and mechanical examination:	-	4.4.1
Design and construction:	3.3	
Finish	3.3.2	-
Screw threads	3.3.3	-
Material	3.2	-
Marking	3.8	-
Workmanship	3.9	-
Dielectric withstanding voltage	3.4	4.4.4

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TABLE IV. Inspection level (group A).

Lot size			Sample size
1	to	15	all
16	to	280	20
281	to	1,200	47
1,201	to	3,200	53
3,201	to	10,000	68
10,001	to	35,000	77
35,001	to	150,000	96
150,001	to	500,000	119
500,001		or more	143

4.3.1.3 Group B inspection. Group B inspection shall consist of the inspections specified in table V in the order shown, and shall be made on sample units which have been subjected to and passed the Group A inspection. Connectors having identical piece parts may be combined for lot purposes and shall be in proportion to the quantity of each PIN numbered connector produced.

4.3.1.3.1 Sampling plan. A sample of parts shall be randomly selected in accordance with table VI. If one or more defects are found, the lot shall be screened for that particular defect and defects removed. After screening and removal of defects, a new sample of parts shall be randomly selected and subjected to all tests in accordance with table VI. If one or more defects are found in the second sample, the lot shall be rejected and shall not be supplied to this specification. Group B inspection shall be performed in any order acceptable to the Government.

TABLE V. Group B inspection.

Examination or test	Requirement paragraph	Method paragraph
Physical dimensions (terminations)	3.3.1	4.4.2
Gage test for contacts	3.1 and 3.3.1.1	4.4.3

TABLE VI. Inspection level (group B).

Lot size			Sample size
1	to	4	100%
5	to	90	5
91	to	150	11
151	to	280	13
281	to	500	16
501	to	1,200	19
1,201	to	3,200	23
3,201	to	10,000	29
10,001	to	35,000	35
35,001		or more	40

4.3.1.3.2 Disposition of sample units. Sample units which have passed the group B inspection, shall be delivered on the contract or order, if the lot is accepted.

4.3.1.3.3 Action in case of lot rejection. When an inspection lot is rejected on group B inspection, the supplier shall immediately investigate the cause of failure and take corrective action to assure that subsequent lots do not contain the same defect or defects.

4.3.1.4 Group C inspection. Group C inspection shall consist of the examinations and test specified in table VII.

4.3.1.4.1 Sampling plan.

4.3.1.4.1.1 Subgroup 1 (unassembled connector adapters). Six sample units of each type connector adapter shall be selected from initial production. Every 30 days thereafter, sample units shall be selected from subsequent production in accordance with table VIII.

TABLE VII. Group C inspection.

Examination or test	Requirement paragraph	Method paragraph
Subgroup 1 (unassembled connector adapters)		
Detail requirements:		
Physical dimensions <u>1/</u>	3.1	4.4.1
Subgroup 2 (assembled connector adapters)		
Vibration	3.6	4.4.6
Shock	3.7	4.4.7
Salt spray (corrosion)	3.5	4.4.5

1/ Only those dimensions related to piece parts shall be checked.

4.3.1.4.1.1.1 Physical dimensions. To facilitate inspection of the physical dimensions, the unassembled sample units shall be divided into groups of identical piece parts. Inspection of the physical dimensions shall then be performed on a group-by-group basis.

4.3.1.4.1.1.2 Acceptance criteria. The acceptance criteria shall be determined as follows:

For each group of identical piece parts, the number of defects in any one particular dimension (e.g., a flat washer would have 3 particular dimensions: inside diameter, outside diameter, and thickness) shall not exceed the applicable acceptance number specified in table VIII.

TABLE VIII. Sample size and acceptance number.

Number of connector adapters of a given type produced during a month <u>2/</u>	Sample size	Acceptance number <u>1/</u>	
		Subgroup 1	Subgroup 2
500 to 1,000, incl	2	0	0

1/ For subgroup 1, see 4.3.1.4.1.1 to 4.3.1.4.1.1.2, inclusive: for subgroup 2, see 4.3.1.4.1.2.

2/ When less than 500 connector adapters of a given type are produced in a month, the sample shall be taken from 2-month's production.

4.3.1.4.1.2 Subgroup 2 (assembled connector adapters). Six sample units of each type connector adapter shall be selected from initial production. Every 30 days thereafter, sample units shall be selected from subsequent production in accordance with table VIII. If the number of failure exceeds the acceptance number specified in table VIII, the sample shall be considered to have failed.

4.3.1.4.2 Noncompliance. If a sample fails to pass group C inspection, the supplier shall take corrective action on the materials or process, or both, as warranted, and on all units of product which can be corrected and which were manufactured under essentially the same conditions, with essentially the same materials, processes, etc, and which are considered subject to the same failure. Acceptance of the product shall be discontinued until corrective action, acceptable to the Government, has been taken. After the corrective action has been taken, group C inspection shall be repeated on additional sample units (all inspection, or the inspection which the original sample failed, at the option of the Government). Group A and B inspection may be re-instituted; however, final acceptance shall be withheld until the group C reinspection has shown that the corrective action was successful. In the event of failure after reinspection, information concerning the failure and the corrective action taken shall be furnished to the contracting officer.

4.3.2 Test equipment and inspection facilities. Test equipment and inspection facilities shall be of sufficient accuracy, reliability, and quantity to permit performance of the required inspection. The supplier shall establish calibration of inspection equipment to the satisfaction of the Government.

4.4 Methods of examination and test.

4.4.1 Visual and mechanical examination. Connector adapters shall be examined to verify that the materials, design, construction, physical dimensions, marking and workmanship are in accordance with the applicable requirements (see 3.1, 3.3.3, incl, 3.8, and 3.9.).

4.4.2 Terminations. Connector adapters shall be examined by use of gages or other means to verify their conformance with table I. Interface dimensions to be in accordance with MIL-STD-348 unless otherwise specified in figures 1 and 2 (see 3.3.1).

4.4.3 Gage test for contacts. Contacts shall be gaged or measured to determine compliance with 3.3.1.1.

4.4.4 Dielectric withstanding voltage (see 3.4). Connector adapters shall be tested in accordance with method 301 of MIL-STD-202. The following details shall apply:

- a. Special preparations or conditions:
 1. The maximum relative humidity shall be 50 percent. When facilities are not available at this test condition, connector adapters shall be tested at room ambient relative humidity. In case of dispute, if the test has been made at room ambient relative humidity, retest shall be made at 50 percent maximum relative humidity.
 2. Precautions shall be taken to prevent air-gap voltage breakdowns by use of a mating connector or a jig simulating a mating connector.
 3. The voltage shall be metered on the high side of the transformer to an accuracy of 5 percent.
 4. Connector adapters having different voltage requirements at each end shall be subjected to the lower voltage (see 3.1).
- b. Magnitude of test voltage – Unless otherwise specified (see 3.1), 1,500 volts root mean square, instantaneously applied.
- c. Nature of potential – Alternating current.
- d. Points of application of test voltage – Between the center contact and the body.
- e. Examination – After the test, connector adapters shall be examined for evidence of breakdown.

4.4.5 Salt spray (corrosion) (see 3.5). Connector adapters shall be tested in accordance with method 101, test condition B, of MIL-STD-202. At the conclusion of this test, the connector adapters shall be washed, shaken, air blasted, and then permitted to dry for 24 hours at 40°C. The connector adapters shall then be examined for evidence of corrosion.

4.4.6 Vibration (see 3.6). Adapters properly mated with their mating connectors shall be tested in accordance with method 204 of MIL-STD-202. The following details and exceptions shall apply:

- a. Mounting of specimens – Adapters shall be mounted by normal mounting means.
- b. Electrical load conditions – No load.
- c. Test condition letter – B.
- d. Measurements – During vibration each adapter shall be monitored to determine electrical discontinuity.

4.4.7 Shock (see 3.7). Adapters properly mated with their mating connectors shall be tested in accordance with method 202 of MIL-STD-202. The following details and exceptions shall apply:

- a. Mounting method – By normal mounting means.
- b. Acceleration requirements – 100 G's.
- c. Number of blows – Adapters shall be subjected to nine blows, three in each of three mutually perpendicular planes.
- d. Electrical load – No load.
- e. Measurements – During shock each adapter shall be monitored to determine electrical discontinuity.

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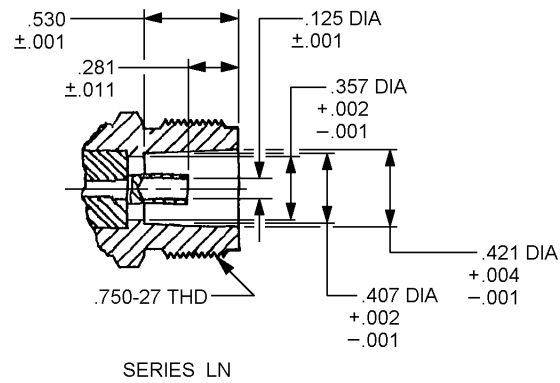
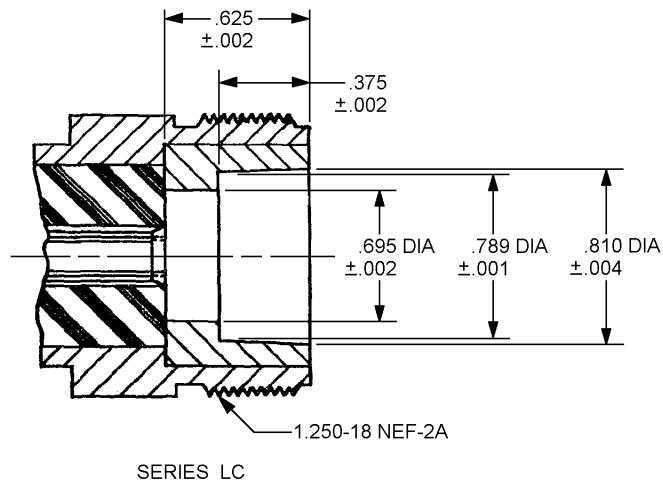
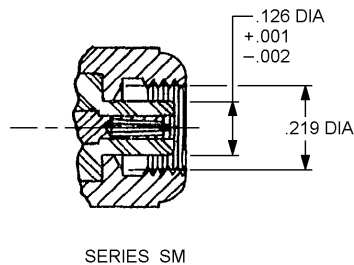
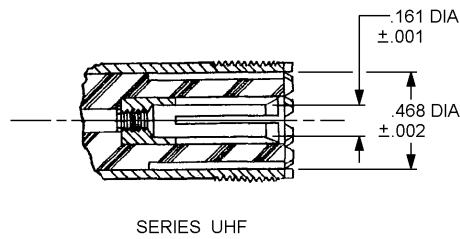
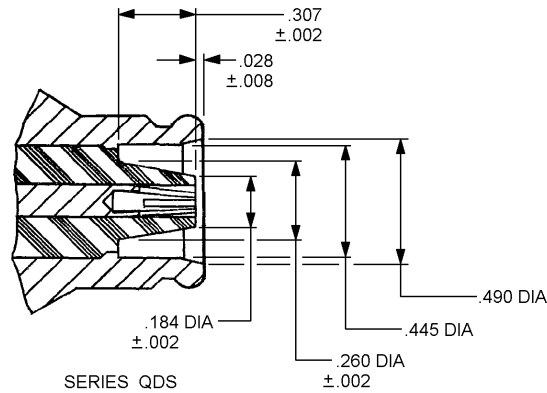
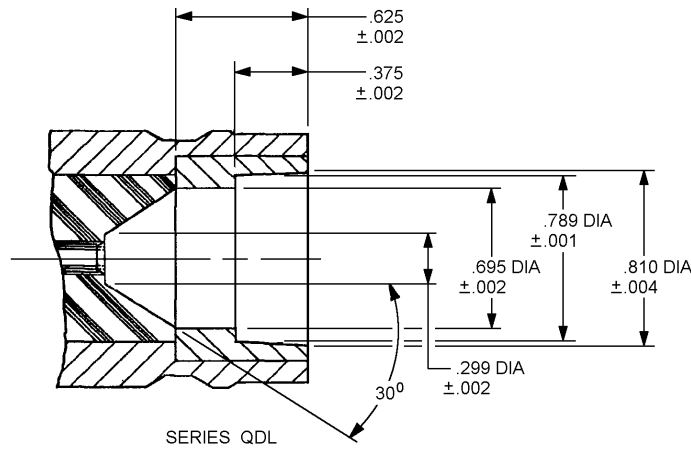


FIGURE 1. Dimensional requirements for female terminations.

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Inches	mm
.001	0.02
.002	0.05
.004	0.10
.008	0.20
.011	0.28
.028	0.71
.125	3.15
.126	3.20
.161	4.09
.184	4.67
.219	5.56
.260	6.60
.281	7.14
.299	7.59
.307	7.80
.357	9.07
.375	9.52
.407	10.34
.421	10.69
.445	11.30
.468	11.89
.490	12.45
.530	13.46
.625	15.87
.695	17.65
.750	19.05
.789	20.04
.810	20.57

NOTES:

1. Dimensions are in inches. Unless otherwise specified tolerances are +/- .005 inch.
2. Metric equivalents are given for information only.

FIGURE 1. Dimensional requirements for female terminations - Continued.

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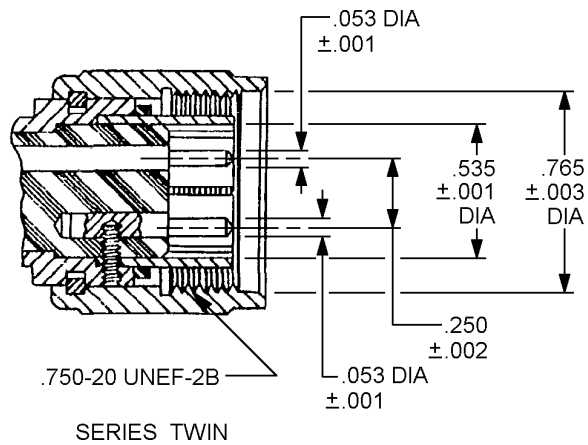
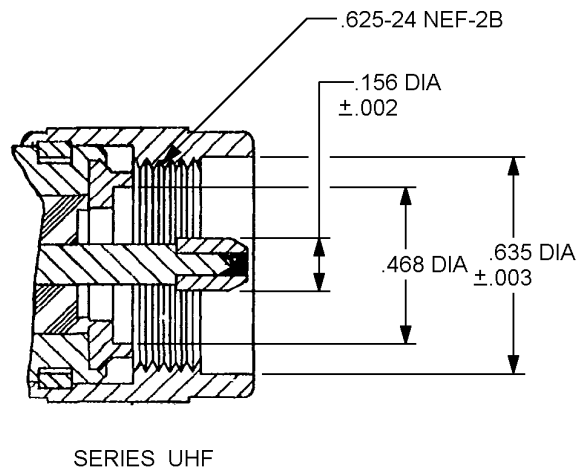
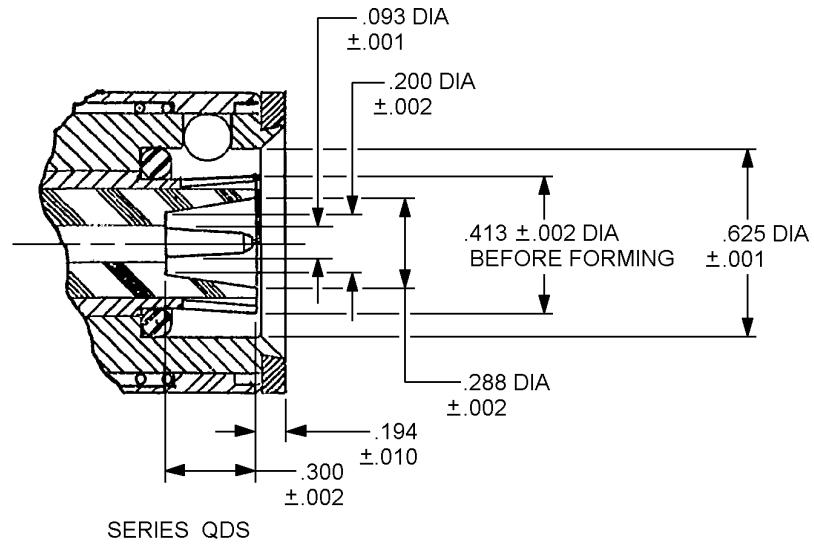


FIGURE 2. Dimensional requirements for male terminations.

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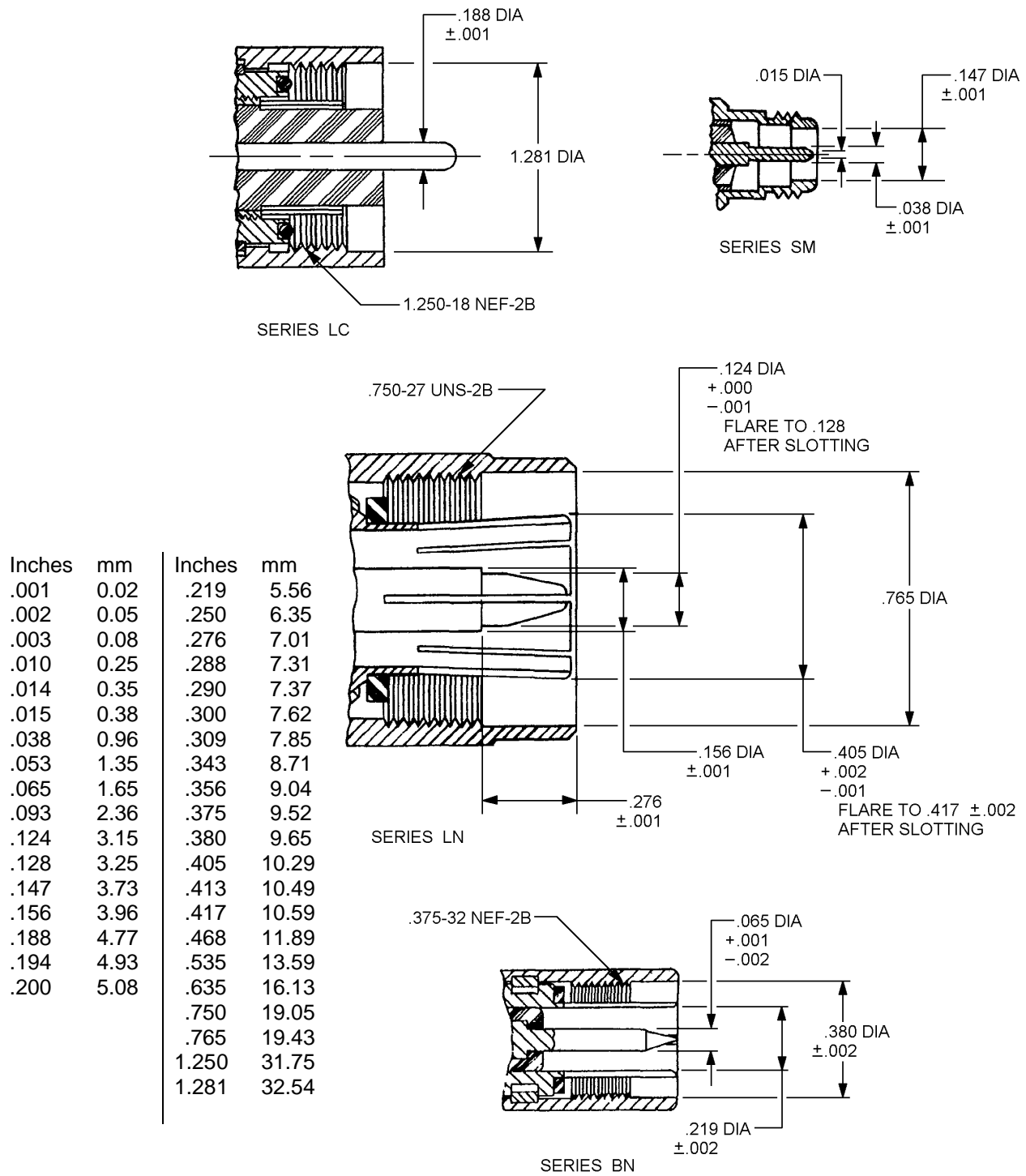
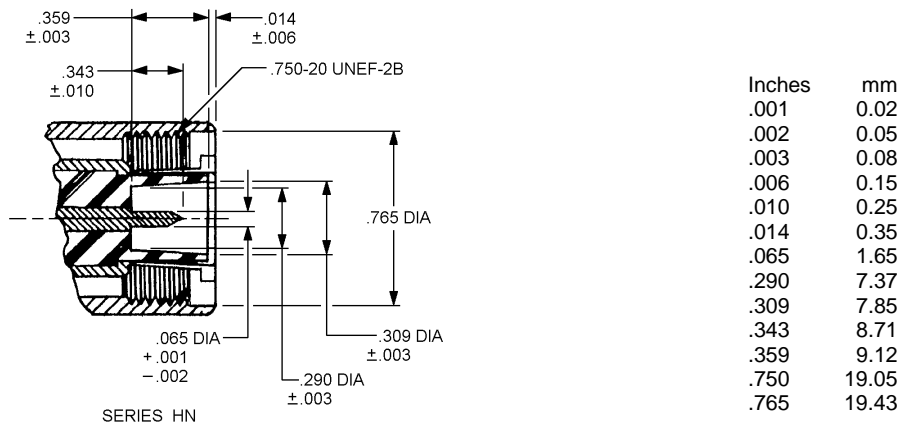


FIGURE 2. Dimensional requirements for male terminations – Continued.

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NOTES:

1. Dimensions are in inches.
2. Metric equivalents are given for information only.

FIGURE 2. Dimensional requirements for male terminations – Continued.

5. PACKAGING

5.1 Packaging requirements. For acquisition purposes, the packaging requirements shall be as specified in the contract or order (see 6.2). When actual packaging of materiel is to be performed by DoD in-house contractor personnel, these personnel need to contact the responsible packaging activity to ascertain packaging requirements. Packaging requirements are maintained by the Inventory Control Point's packaging activities within the Military Service or Defense Agency, or within the military service system commands. Packaging data retrieval is available from the managing Military Department's or Defense Agency's automated packaging files, CD-ROM products, or by contacting the responsible packaging activity.

6. NOTES

(This section contains information of a general or explanatory nature that may be helpful, but is not mandatory.)

6.1 Intended use. Connector adapters covered by this specification are intended for use in radio-frequency applications up to 10,000 megahertz. Their use is governed by temperature limitation of materials, and they are not recommended for use applications where temperatures exceed 125°C.

6.2 Acquisition requirements. Acquisition documents should specify the following:

- a. Title, number, and date of this specification.
- b. Issue of DoDISS to be cited in the solicitation, and if required, the specific issue of individual documents referenced (see 2.2. and 2.3).
- c. Packaging requirements (see 5.1).
- d. Title, number, and date of the applicable detail specification, and the complete type designation (see 1.2.1 and 3.1.)
- e. That the supplier will not substitute for a specified material or combination of fabricated parts (see 3.3) unless he obtains approval from the Government. Evidence to substantiate his claim that such a substitution is suitable is to be submitted with his request. Similar notification and substantiating evidence will be submitted at any later time if substitution becomes necessary or desirable. At the discretion of the Government, test sample may be required to prove the suitability of the proposed substitute.
- f. Levels of preservation and packaging and packing, and applicable marking. (See section 5.)

6.3 Cross index. This specification covers the design of between-series connector adapters which were previously covered by single Service drawings and sheet form MS military standards. Table IX is a cross index of the connector adapters and single Service drawings and MS military standards.

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TABLE IX. Cross index of connector adapters and Service drawings and MS Military standards.

Type designation	Bureau of Ships drawing	Signal Corps drawing	Air Force drawing	MS Military standard
UG-108A/U	REB49277	-	-	-
UG-201A/U	REB49324	-	-	-
UG-213A/U	REB49274	-	-	-
UG-217A/U	REB49203	-	-	-
UG-218A/U	REB49275	-	-	-
UG-259A/U	REB49204	-	-	-
UG-270A/U	REB49278	-	-	-
UG-271A/U	REB49279	-	-	-
UG-327A/U	REB49287	-	-	-
UG-335/U	REB49103	-	-	-
UG-497A/U	REB49273	-	-	-
UG-516A/U	-	-	51B12903	-
UG-559B/U	REB49344	-	50C13669	-
UG-564/U	REB49247	-	-	MS35321 (SigC)
UG-565A/U	REB49250	-	-	MS35324 (SigC)
UG-586B/U	REB49164	-	-	-
UG-587B/U	REB49165	-	-	-
UG-605/U	REB49271	-	-	-
UG-606/U	-	-	51C12929	-
UG-635/U	REB49237	-	-	MS35331 (SigC)
UG-636A/U	REB49238	-	-	MS35283 (SigC)
UG-637/U	-	-	-	MS35382 (SigC)
UG-690/U	-	-	-	MS35113 (SigC)
UG-691/U	-	-	-	MS35114 (SigC)
UG-702/U	-	-	-	MS90253
UG-703A/U	-	-	-	MS90261
UG-966/U	REB49121	-	-	-
UG-970/U	-	SC-C-106729	-	-
UG-971/U	-	SC-C-106728	-	-
UG-977C/U	REB49126	-	-	-
UG-1013A/U	REB49129	-	-	-
UG-1034/U	-	SC-D-19743	-	-
UG-1136/U	REB49306	-	-	-
UG-1137B/U	REB49309	-	-	-
UG-1142/U	REB49319	-	-	-
UG-1143/U	REB49320	-	-	-
UG-1144/U	REB49321	-	-	-
UG-1146/U	REB49323	-	-	-
UG-1306/U	-	SC-D-45985	-	-

6.4 Term (keyword) listing

Copper beryllium
VSWR

6.5 Environmentally preferable material. Environmentally preferable materials should be used to the maximum extent possible to meet the requirements of this specification. Table X lists the Environmental Protection Agency (EPA) top seventeen hazardous materials targeted for major usage reduction. Use of these materials should be minimized or eliminated unless needed to meet the requirements specified herein (see section 3).

6.6 Changes from previous issue. Marginal notations are not used in this revision to identify changes with respect to the previous issue due to the extent of the changes.

TABLE X. EPA top seventeen hazardous materials.

Benzene	Dichloromethane	Tetrachloroethylene
Cadmium and Compounds	Lead and Compounds	Toluene
Carbon Tetrachloride	Mercury and Compounds	1,1,1 - Trichloroethane
Chloroform	Methyl Ethyl Ketone	Trichloroethylene
Chromium and Compounds	Methyl Isobutyl Ketone	Xylenes
Cyanide and Compounds	Nickel and Compounds	

CONCLUDING MATERIAL

Custodians:

Army – CR
Navy – EC
Air Force – 11
DLA - CC

Preparing activity:

DLA - CC

(Project 5935-4433-000)

Review activities:

Army – AR, AT, CR4, MI
Navy – AS, MC, OS
Air Force – 19, 99

NOTE: The activities listed above were interested in this document as of the date of this document. Since organizations and responsibilities can change, you should verify the currency of the information above using the ASSIST Online database at www.dodssp.daps.mil.